

AMENDMENTS TO THE CLAIMS

The following is a copy of Applicant's claims that identifies language being added with underlining ("___") and language being deleted with strikethrough ("~~___~~"), as is applicable:

1. (Original) A method for providing a seamless transition between video play-back modes, comprising the steps of:

storing a video stream in memory;
receiving a request for a trick mode operation;
responsive to receiving the request for a trick mode operation, using information provided by a video decoder to identify a first video picture to be decoded;
decoding the first video picture; and
outputting the first video picture to a display device.

2. (Original) The method of claim 1, further comprising decoding and outputting a second video picture, wherein the first video picture and the second video picture are part of a group of pictures.

3. (Original) The method of claim 1, wherein the information provided by the video decoder is a time value that is associated with the first video picture.

4. (Original) The method of claim 1, wherein the first video picture is adjacent in display order to another video picture that was being output to the display device when the request for the trick mode operation was received.

5. (Original) The method of claim 1, wherein the video stream is received from a headend.

6. (Original) The method of claim 1, wherein the memory is a non-volatile memory.

7. (Original) The method of claim 1, further comprising storing information related to the video stream in memory.

8. (Original) The method of claim 7, wherein a demultiplexing system uses data embedded in the video stream to generate the information related to the video stream.

9. (Original) The method of claim 7, wherein the information related to the video stream comprises an index table.

10. (Original) The method of claim 9, wherein the index table identifies when each of a plurality of pictures within the video stream was stored in memory relative to a point in time.

11. (Original) The method of claim 10, wherein the point in time corresponds to when recording of the video stream commences.

12. (Original) The method of claim 9, wherein the index table associates time values with respective video pictures within the video stream.

13. (Original) The method of claim 9, wherein the index table associates values with respective video pictures within the video stream, the values being indicative of a display order of the pictures within the video stream.

14. (Original) The method of claim 9, wherein the index table identifies storage locations of respective picture start codes.

15. (Original) The method of claim 9, wherein the index table identifies picture types.

16. (Original) The method of claim 9, wherein the index table identifies storage locations of respective sequence headers.

17. (Original) The method of claim 1, wherein the trick mode operation is one of a fast play mode, a rewind mode, or a play mode.

18. (Original) The method of claim 1, wherein the information provided by the video decoder identifies a normal playback time required to reach the first video picture from a beginning of the video stream.

19. (Original) The method of claim 1, further comprising:
examining information in an index table;
examining annotation data corresponding to the video stream; and
determining an entry point for fulfilling the trick mode request responsive to the annotation data and the information in the index table.

20. (Original) The method of claim 1, wherein the method is implemented by a television set-top terminal, and wherein the display device is a television.

21. (Original) A method comprising the steps of:
receiving a first video stream from a video server, the video stream comprising a plurality of video pictures;
decoding a current video picture from among the plurality of video pictures;
receiving user input requesting a trick-mode operation;
transmitting a value associated with the current video picture and information identifying the trick mode operation to the video server; and
receiving from the video server a second video stream configured to enable a seamless transition to the trick-mode operation.

22. (Original) The method of claim 21, wherein the value associated with the current video picture is a time value.

23. (Original) The method of claim 22, wherein the time value is relative to a beginning of the first video stream.

24. (Original) The method of claim 21, wherein the value associated with the current video picture enables identification of a storage location corresponding to the video picture.

25. (Original) The method of claim 21, wherein the trick mode operation is one of a fast play mode, a rewind mode, or a play mode.

26. (Currently Amended) The method of claim 21, wherein:
the method is implemented by a television set-top terminal; and
~~the display device is a television; and~~
the video server is located at a headend.

27. (Original) The method of claim 21, wherein one of the video pictures in the second video stream is temporally adjacent to the current video picture.

28. (Currently Amended) A method for providing a seamless transition between video play-back modes, comprising the steps of:
decoding a current video picture;
parsing a stuffing transport packet (STP) ~~comprising~~ comprising to extract a time value corresponding to the current video picture; and
storing the time value in memory.

29. (Original) The method of claim 28, further comprising:
using the time value to identify a location from which to begin a trick mode operation within a video presentation.

30. (Original) The method of claim 29, wherein the location corresponds to the current video picture.

31. (Original) The method of claim 29, wherein the location corresponds to a video picture that is adjacent in display order to the current video picture.

32. (Currently Amended) The method of claim ~~[[28]]~~ 29, wherein the trick mode operation is one of a fast play mode, a rewind mode, or a play mode.

33. (Original) The method of claim 28, wherein the time value is correlated to a normal playtime from a beginning of a video stream to the current video picture.

34. (Original) The method of claim 28, wherein the method is implemented by a video decoder.

35. (Currently Amended) A system for providing a seamless transition between video play-back modes, comprising:

a memory device for storing a video stream that includes a current video picture;

a processor ~~that is coupled to~~ in communication with the memory device; and

a video decoder ~~that is coupled to~~ in communication with the processor, and that is configured to:

decode the current video picture,

parse a stuffing transport packet (STP) ~~that includes~~ to extract a time value corresponding to the current video picture, and

store the time value.

36. (Original) The system of claim 35, wherein the processor is programmed to use the time value to identify a location from which to begin a trick mode operation within a video presentation.

37. (Original) The system of claim 36, wherein the location corresponds to the current video picture.

38. (Original) The system of claim 36, wherein the location corresponds to a video picture that is adjacent in display order to the current video picture.

39. (Currently Amended) The system of claim ~~[[35]]~~ 36, wherein the trick mode operation is one of a fast play mode, a rewind mode, or a play mode.

40. (Original) The system of claim 35, wherein the time value is correlated to a normal play-time from a beginning of the video stream to the current video picture.

41. (Cancelled)

42. (New) A set-top terminal comprising:
a processor;
memory storing program instructions thereon;
a storage device storing a compressed video stream;
a decoder configured to:
 decode a compressed picture, responsive to a playback request;
 parse a stuffing transport packet (STP) to extract a time value corresponding to the decoded picture; and
 store the extracted time value corresponding to the decoded picture;
wherein the processor is configured by the program instructions to:
 receive a user request for trick mode play of a compressed video stream;
 responsive to the user request for trick mode play, receive the stored time value from the decoder;
 identify, based on the received time value, a picture location; and

retrieve a picture from the stored compressed video stream using the identified picture location.